

From: Joseph Vitale
To: [Geiger, William](#)
Subject: RE: Sheet Pile Wall Repair - Response to Comments and Additional Calculations (UNCLASSIFIED)
Date: Monday, December 14, 2015 2:11:08 PM

Hi Will:

I spoke to Nicholas Steenhaut and he said we will be addressing the latest comments from both USACE and CDM with the revised design package.

The package will be submitted to EPA and the USACE before December 24th. If you have any questions, please give me a call.

Regards,
Joseph P Vitale, PE, LSP

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Principal Consultant

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My email address has changed to jvitale@ramboll.com. Please make a note of this in your contact records. I will continue to receive email at the jvitale@environcorp.com address.

-----Original Message-----

From: Geiger, William [<mailto:Geiger.William@epa.gov>]
Sent: Thursday, December 10, 2015 11:51 AM
To: Joseph Vitale <jvitale@ramboll.com>
Subject: FW: Sheet Pile Wall Repair - Response to Comments and Additional Calculations (UNCLASSIFIED)

Joe, this is the last communication I could find about the sheet-pile wall repair plan. It includes comments from both USACE (if you scroll down through the email text), and CDM (attached).

I can't find any response from you guys, or a final repair plan. I may be missing something though. Let me know if you can find any later correspondence.

-Will

William A. Geiger
Remedial Project Manager
Hazardous Site Cleanup Division (3HS21)
U.S. Environmental Protection Agency

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Phone: 215.814.3413
Geiger.William@epa.gov

-----Original Message-----

From: Geiger, William
Sent: Friday, August 21, 2015 9:41 AM
To: Joseph Vitale <jvitale@environcorp.com>
Cc: Apakian, Mary <ApakianMJ@cdmsmith.com>; David.S.Depolo@usace.army.mil;
Travis.T.Fatzinger@usace.army.mil; Walter J. Papp, Jr. (walter@racllc.com) <walter@racllc.com>; Spencer, John W. <spencerjw@cdmsmith.com>; George.Horvat@exeloncorp.com; Lisa E. Pfeifer <lisa.pfeifer@pepcoholdings.com>; Patrick Eisenhauer - PPL Electric Utilities Corp. <PEisenhauer@pplweb.com>; NSteenhaut@environcorp.com; Rich Blackman <Richard.Blackman@pseg.com>; Vito Mariani <marianiv@coned.com>
Subject: Sheet Pile Wall Repair - Response to Comments and Additional Calculations (UNCLASSIFIED)

Joe, this email includes comments from the USACE (below) and CDM (attached) on the responses that we received in the July 31st email from Nicholas Steenhaut (also included in chain below). Please call or email me with any questions. Thanks.

-Will

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-----Original Message-----

From: Depolo, David S NAP [<mailto:David.S.Depolo@usace.army.mil>]
Sent: Thursday, August 20, 2015 9:31 AM
To: Fatzinger, Travis T NAP; Geiger, William; 'Apakian, Mary'
Subject: RE: Response to Comments and Additional Calculations (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Will,

The calculations on page 4 of 6 which evaluate the bending capacity of the channel walers over estimates the strength of the channels. The allowable flexural strength is calculated based on $F_y \times Z_x$ which is the plastic moment strength (Mp). This strength can only be achieved if lateral torsional buckling (LTB) is prevented by bracing the compression flange. I think the compression flange is only braced at the tie rod locations which creates an unbraced length of approx. 12 to 17ft. The limiting unbraced length to reach the plastic capacity is between 3.24 and 4.63ft depending on the section. Therefore, LTB is applicable and the section would not reach Mp. If the walers are supported between the tie-rod the calculations might be acceptable but I am not sure if they are. If the strength is reduced accordingly, the demand could also be reduced because the maximum moment was calculated based on $wL^2/8$. Because walers act more like continuous beams the moment could be reduced and calculated using $wL^2/10$ to account for the continuity. Because the FS is well above 1.0 or additional sistering will be used, making the above changes should not affect the section selected.

My other comment is more general and falls in line with how the Corps typically controls the quality of work we are paying for. We have quality control (QC) and quality assurance (QA) on almost all work that is done for us and is

usually described in the scope of work. Quality control is completed by the AE that is performing the work and is typically an independent line by line review of the calculations and drawings. The quality assurance is then usually completed by the Corps to ensure that the QC was completed, applicable codes were used, and that the overall concept seems reasonable and justifiable. In this case I see us being the QA reviewer and by seeing the "Checked" line on all of the calculations blank infers the AE has not completed a QC of the documents. This is substantiated based on the above comment and the comments provided in past reviews which dealt with calculation errors.

David

-----Original Message-----

From: Fatzinger, Travis T NAP
Sent: Thursday, August 20, 2015 8:22 AM
To: Geiger, William; 'Apakian, Mary'
Cc: Depolo, David S NAP
Subject: RE: Response to Comments and Additional Calculations (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Will,

I have no additional comments on the work plan, they are still relying on the contractor to do a lot of the design in the field. Dave Depolo will be sending a few additional structural comments your way today.

Thanks,

Travis

-----Original Message-----

From: Geiger, William [<mailto:Geiger.William@epa.gov>]
Sent: Monday, August 03, 2015 9:21 AM
To: Fatzinger, Travis T NAP; 'Apakian, Mary'
Subject: [EXTERNAL] FW: Response to Comments and Additional Calculations

Travis/Mary Jo, can you guys have your respective teams review these. I think this was the quick turnaround they had mentioned, so the sooner you can get me comments, the better. Thanks.

-Will

William A. Geiger

Remedial Project Manager

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Geiger.William@epa.gov <<mailto:Geiger.William@epa.gov>>

From: Nicholas Steenhaut [<mailto:NSteenhaut@environcorp.com>]

Sent: Friday, July 31, 2015 3:52 PM

To: Geiger, William

Cc: Apakian, Mary; David.S.Depolo@usace.army.mil; Travis.T.Fatzinger@usace.army.mil; Walter J. Papp, Jr. (walter@racllc.com); Spencer, John W.; Joseph Vitale; George.Horvat@exeloncorp.com; Lisa E. Pfeifer; Patrick Eisenhower - PPL Electric Utilities Corp.; Rich Blackman; Vito Mariani

Subject: Response to Comments and Additional Calculations

Hi Will,

As promised, I have attached our responses to USACE's and CDM's comments to the Metal Bank Sheetpile Repair Work Plan (RTC Letter 2015 073115). The responses in the letter reflect the discussions we had on our conference call last month. In addition, we are including two files (DeepEX Stage Graphs.pdf, and METAL BANK CALCULATIONS.PDF) containing the results of the supplemental modeling runs requested by USACE. These calculations confirm that the proposed repairs will stabilize the sheetpile. We have also included an updated version of the technical drawings and specifications, reflecting the changes we made in response to some of the comments we received (Attachment B - Drawings and Specifications.pdf).

Should you have any questions or concerns, don't hesitate to contact us. We plan to move forward with the solicitation of bids in the near future.

Regards,

Nicholas Steenhaut, PE

Senior Manager

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Caveats: NONE

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